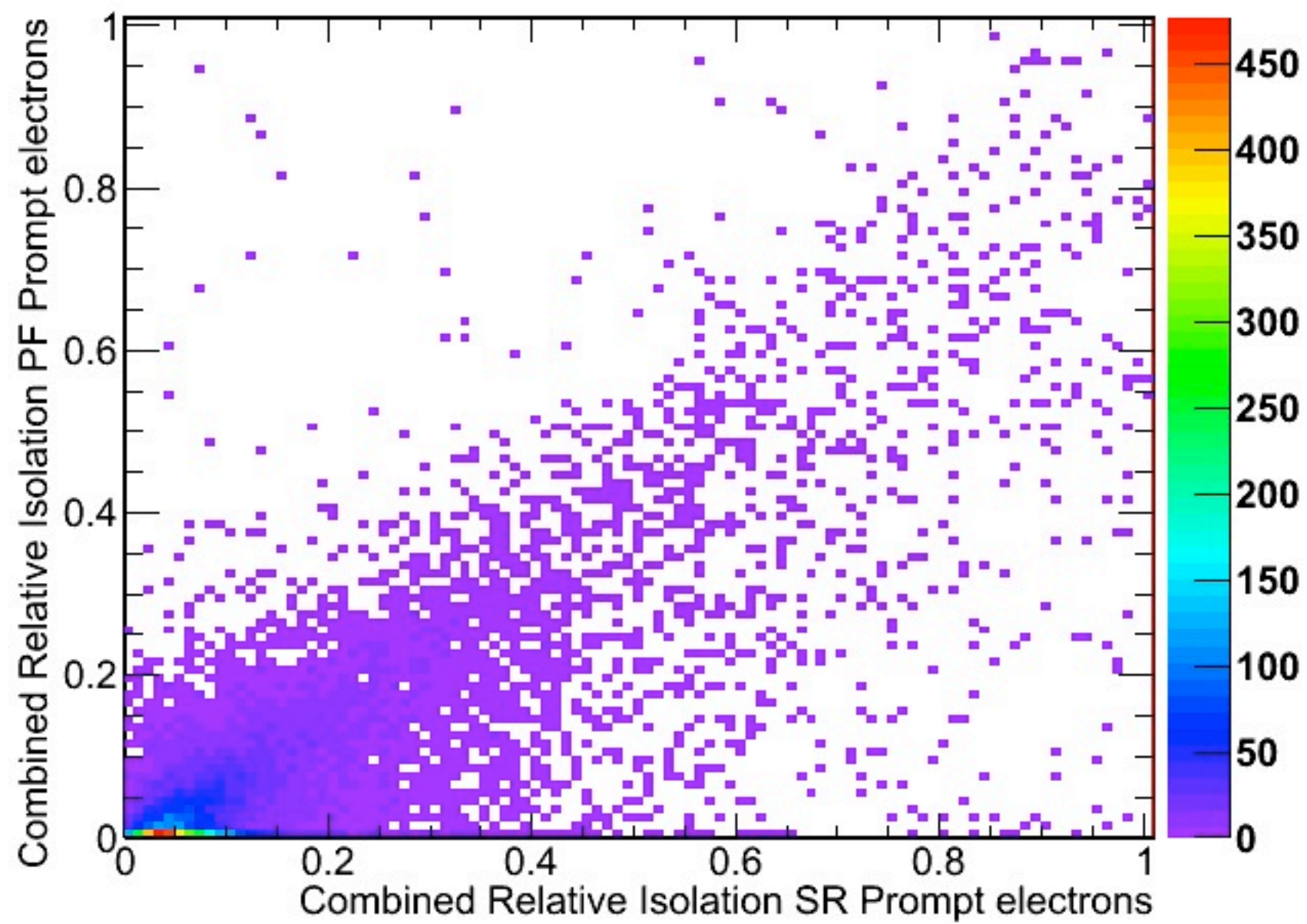
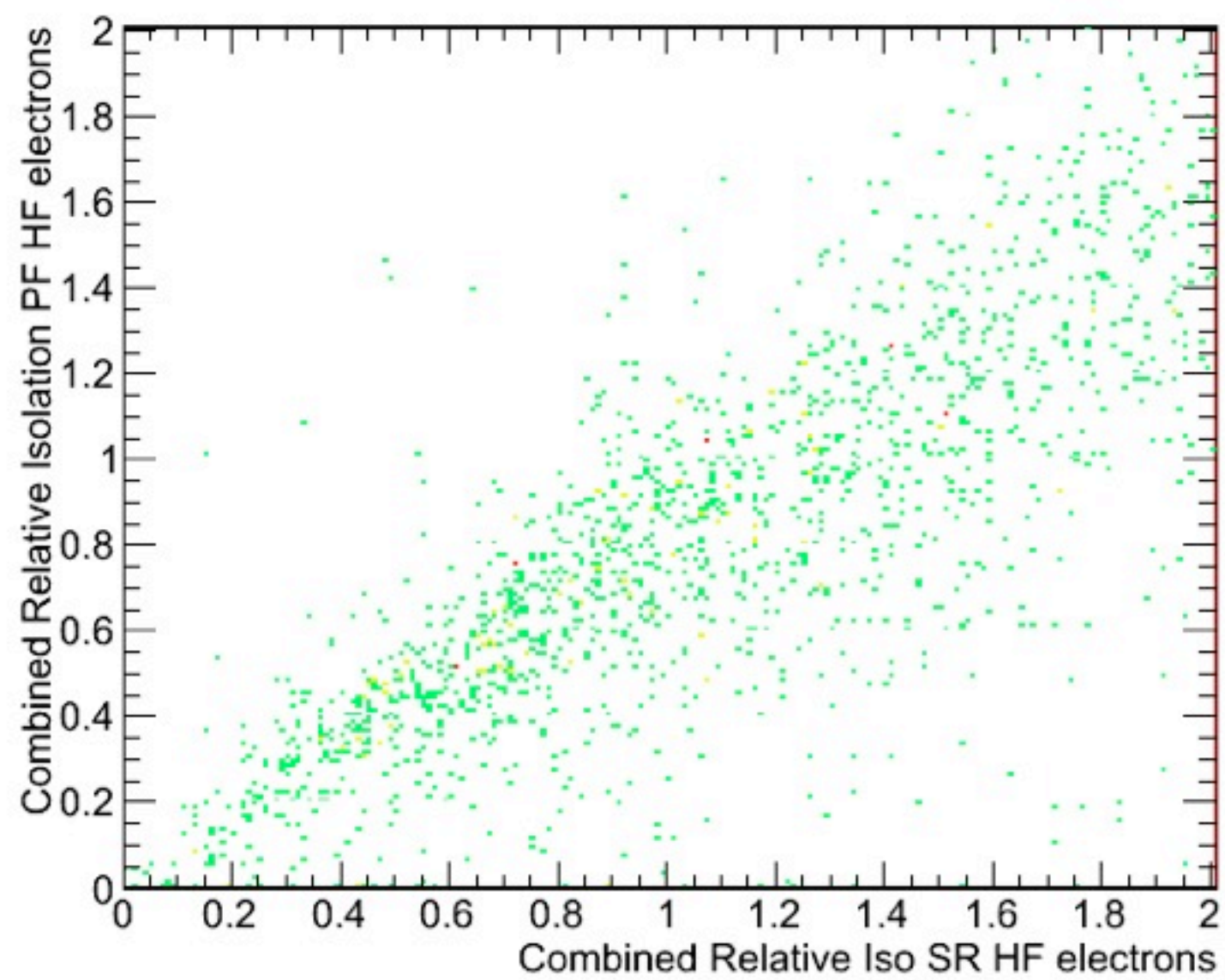
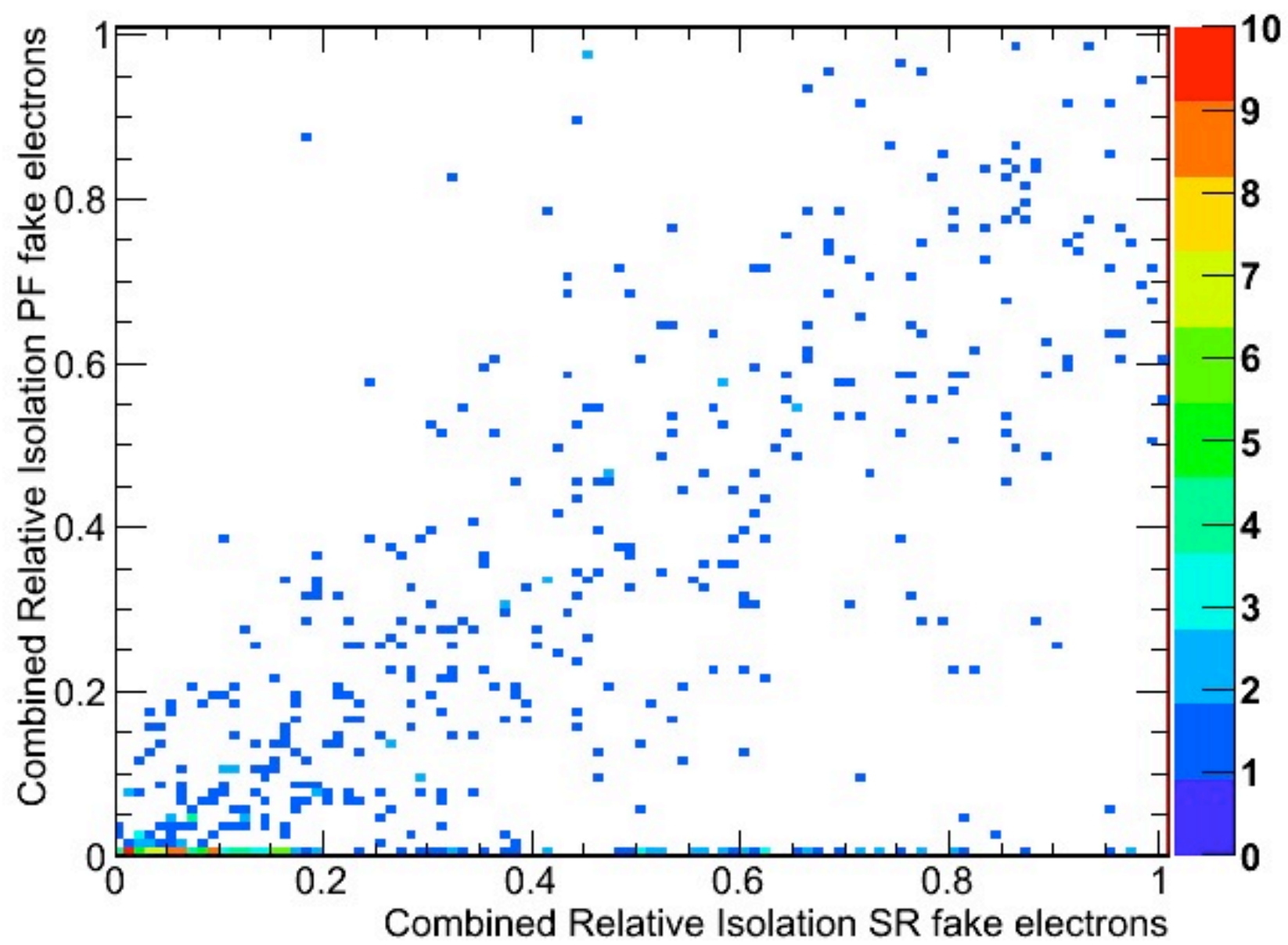


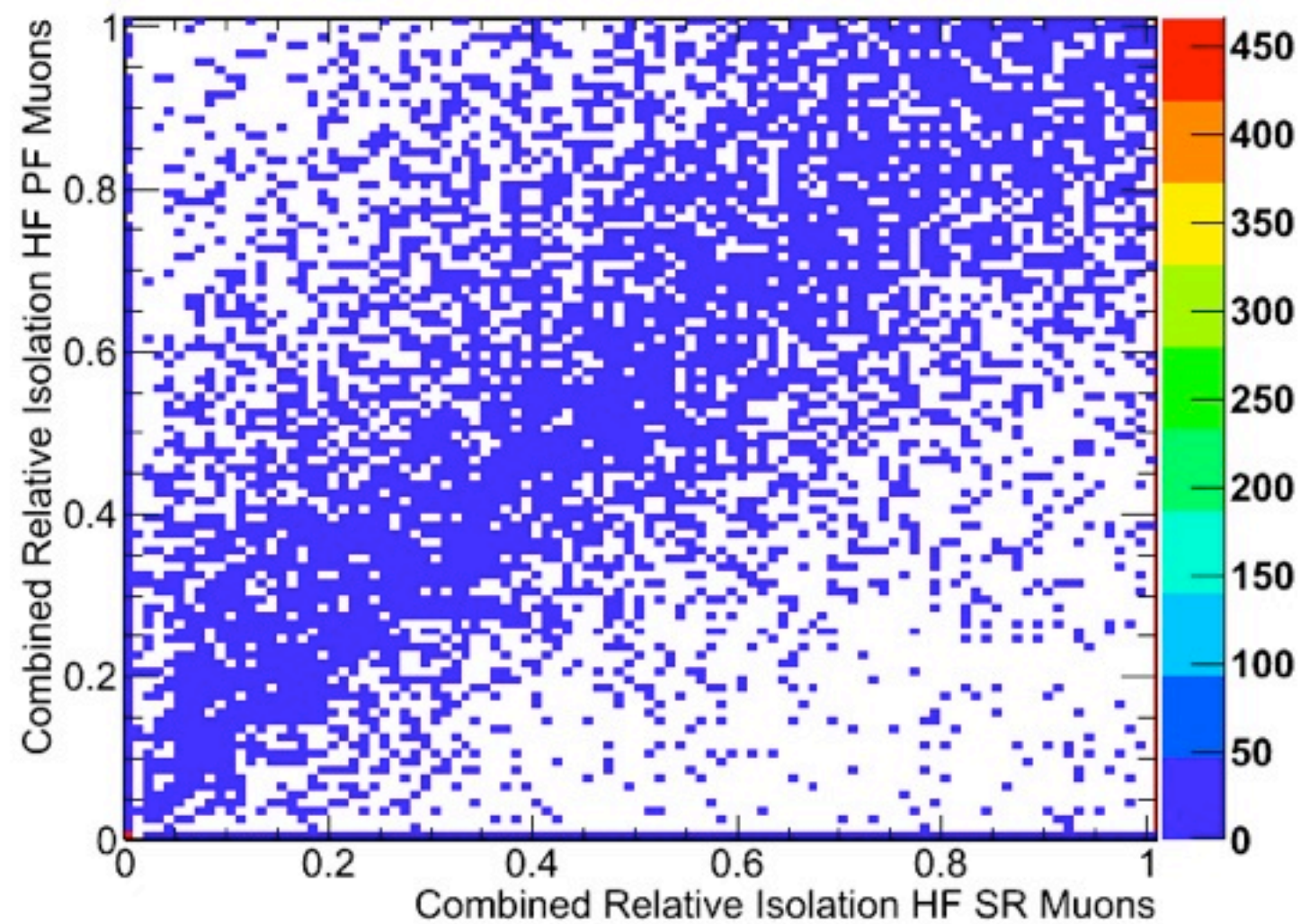
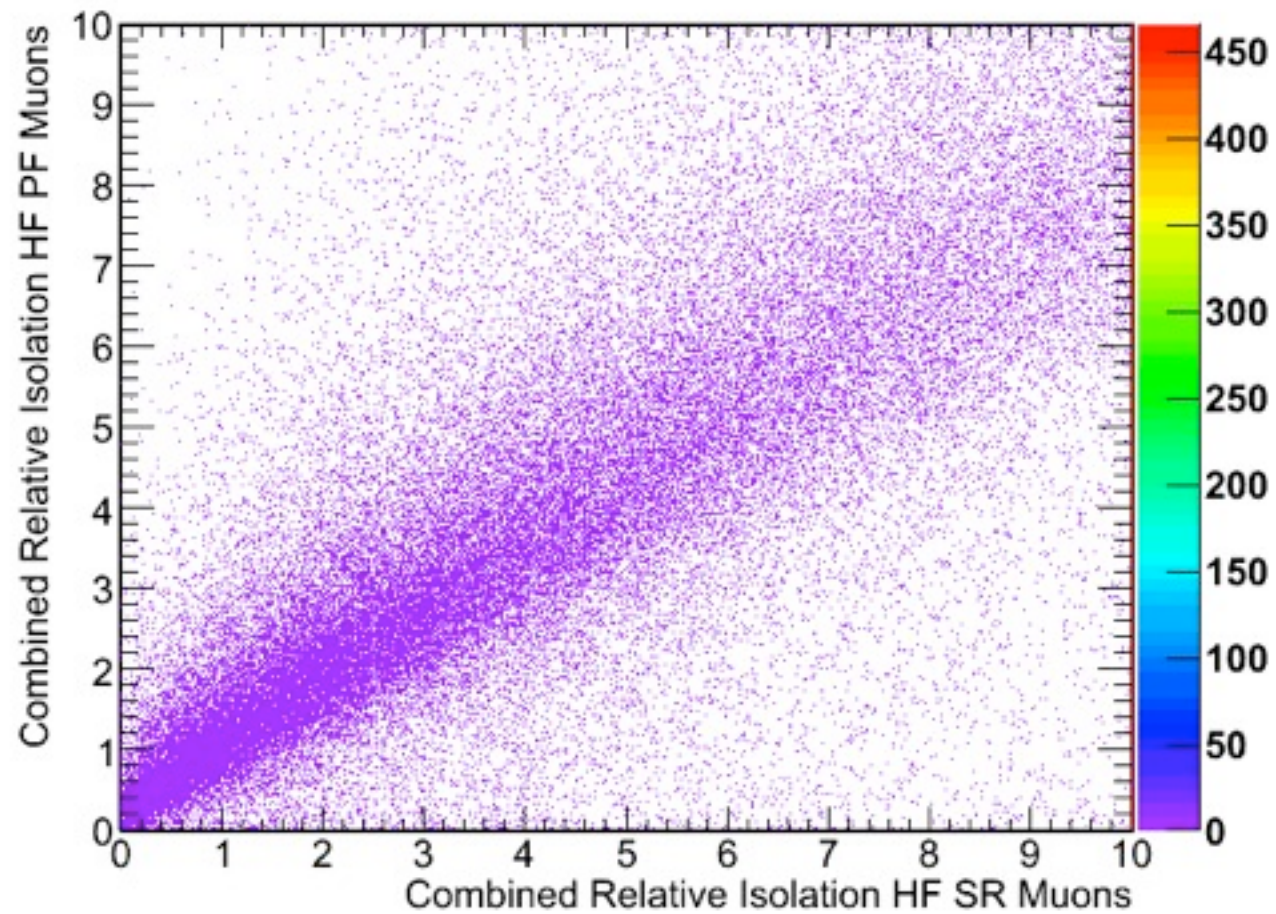
Electrons

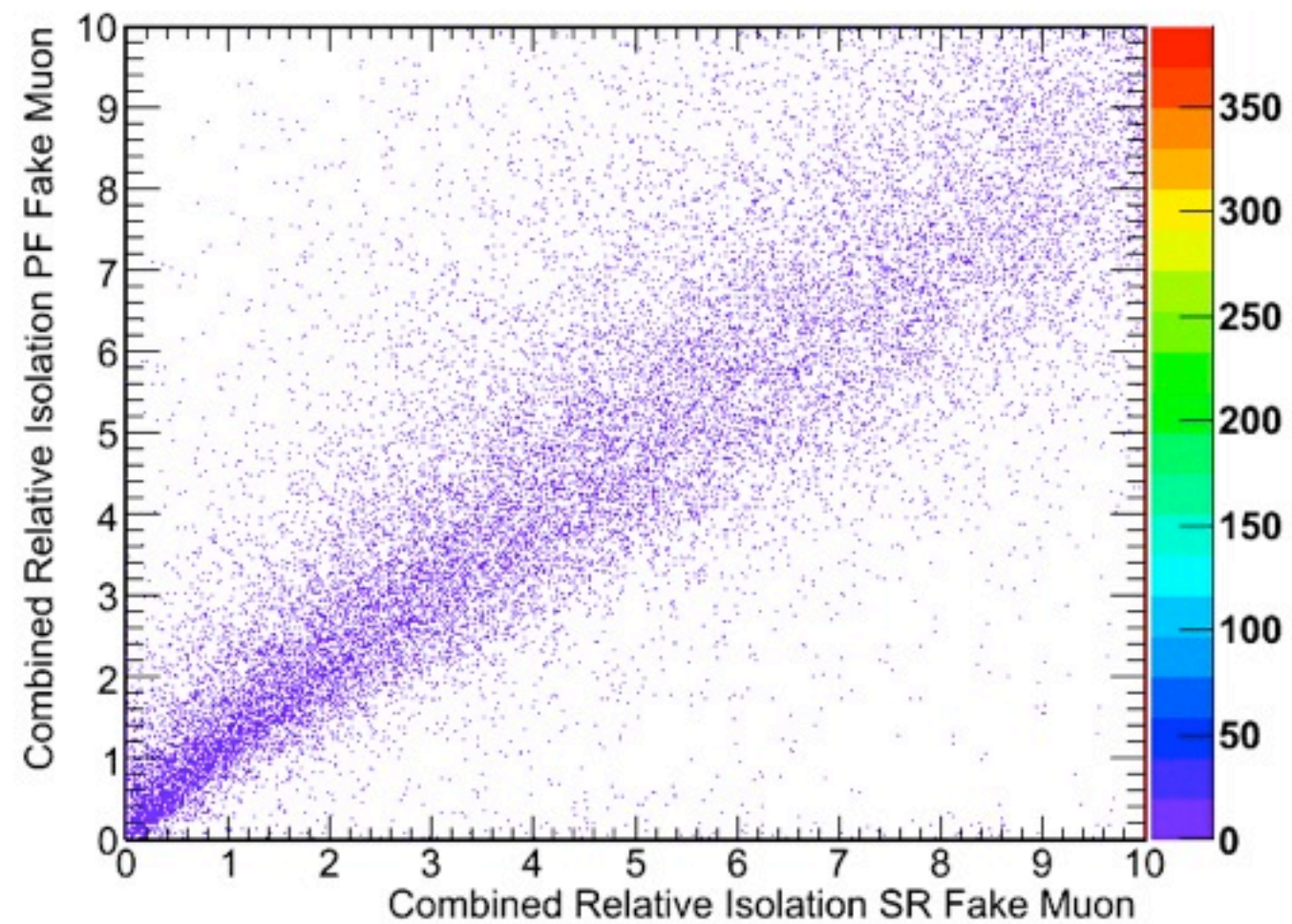
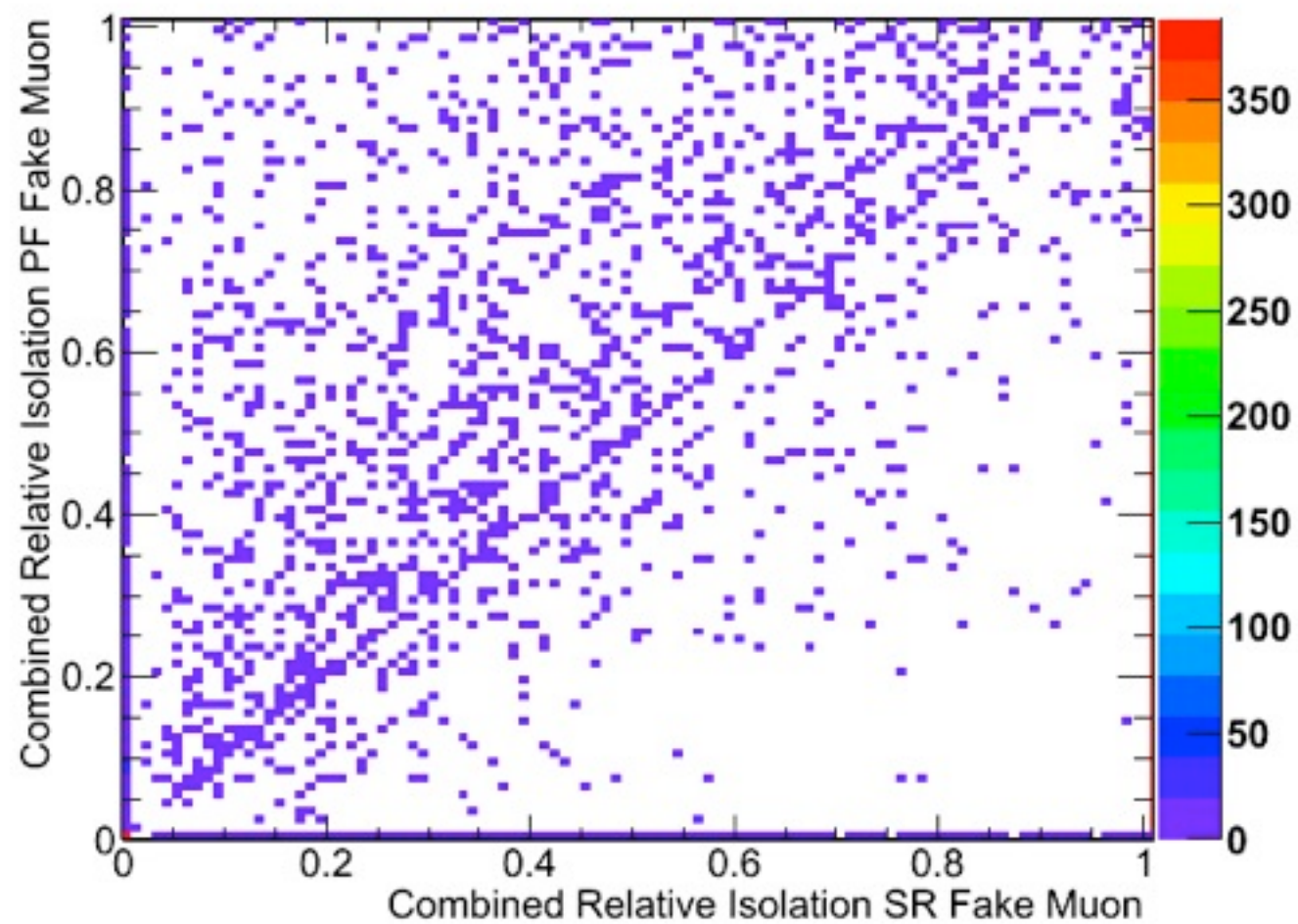


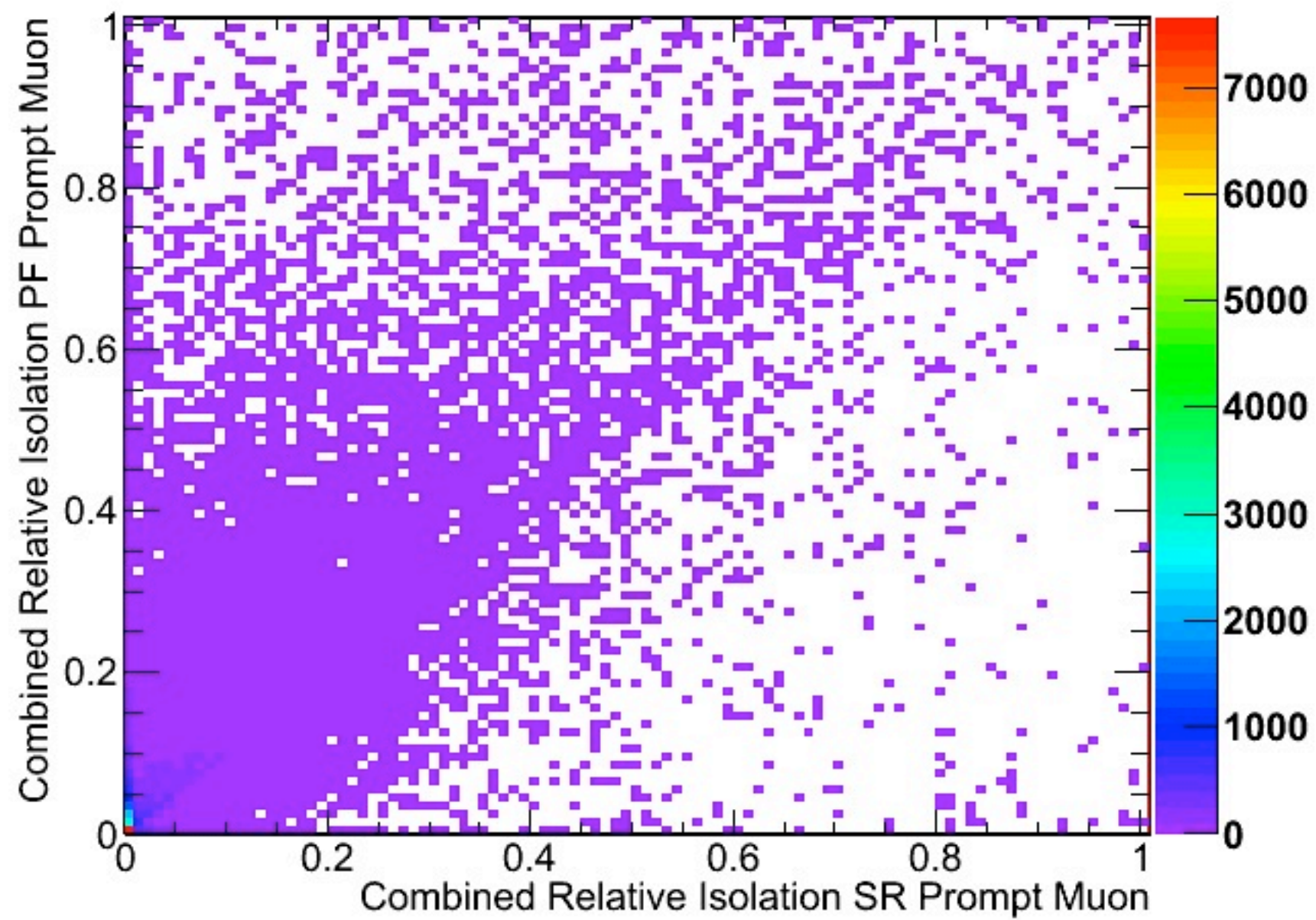




Muons







I took **2000** LM0 Events



I run a Single Lepton Electron selection



There were **89** events that passed at least one cut



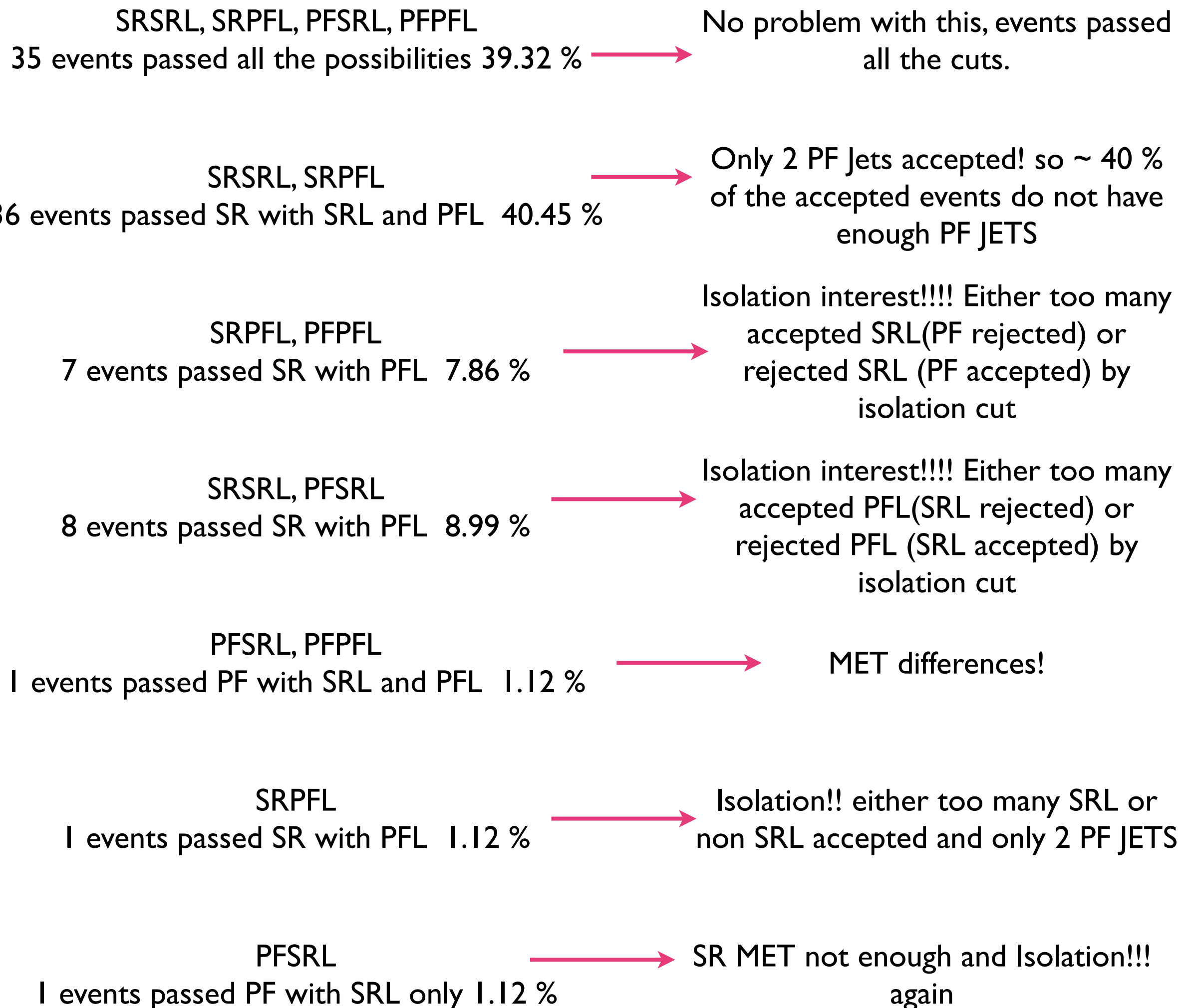
The options were

SR MET and JETS with SR leptons (SRSRL)

SR MET and JETS with PF leptons (SRPFL)

PF MET and JETS with SR leptons (PFSRL)

PF MET and JETS with PF leptons (PFPFL)

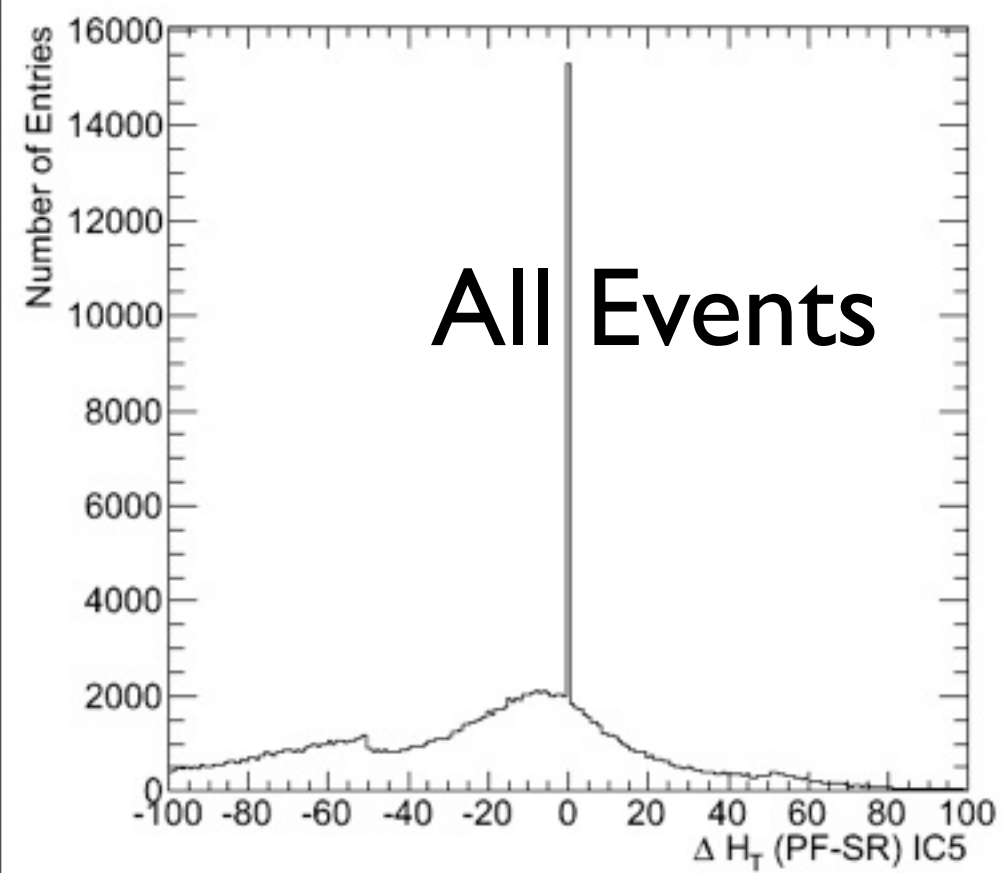


17 from 89 events , $\sim 20\%$ of the accepted events are different in PF and SR due to lepton isolation issues.

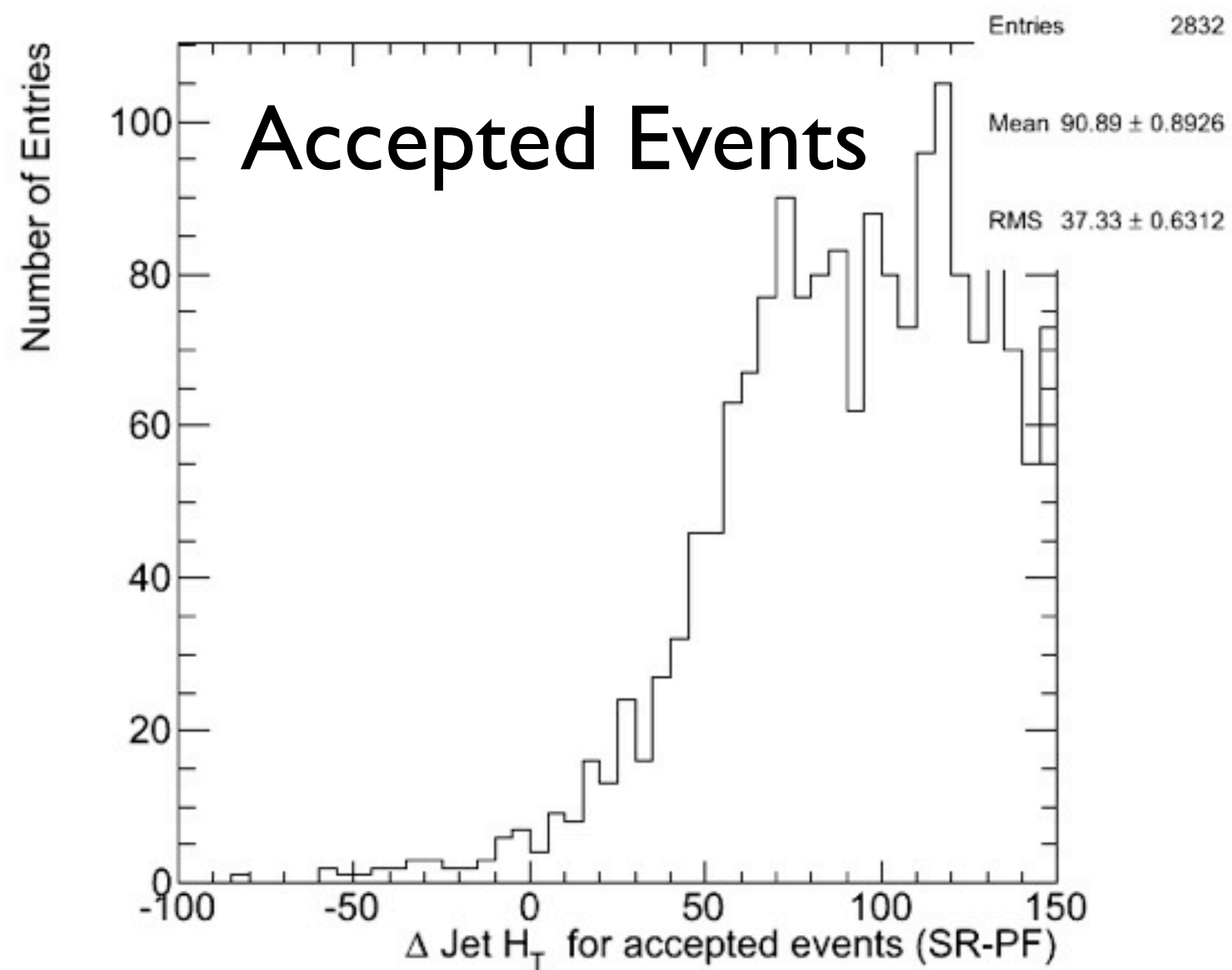
36 from 89 events , $\sim 40\%$ of the accepted events are different in PF and SR due to PF Jets.

2 from 89 events , $\sim 2\%$ of the accepted events are different in MET.

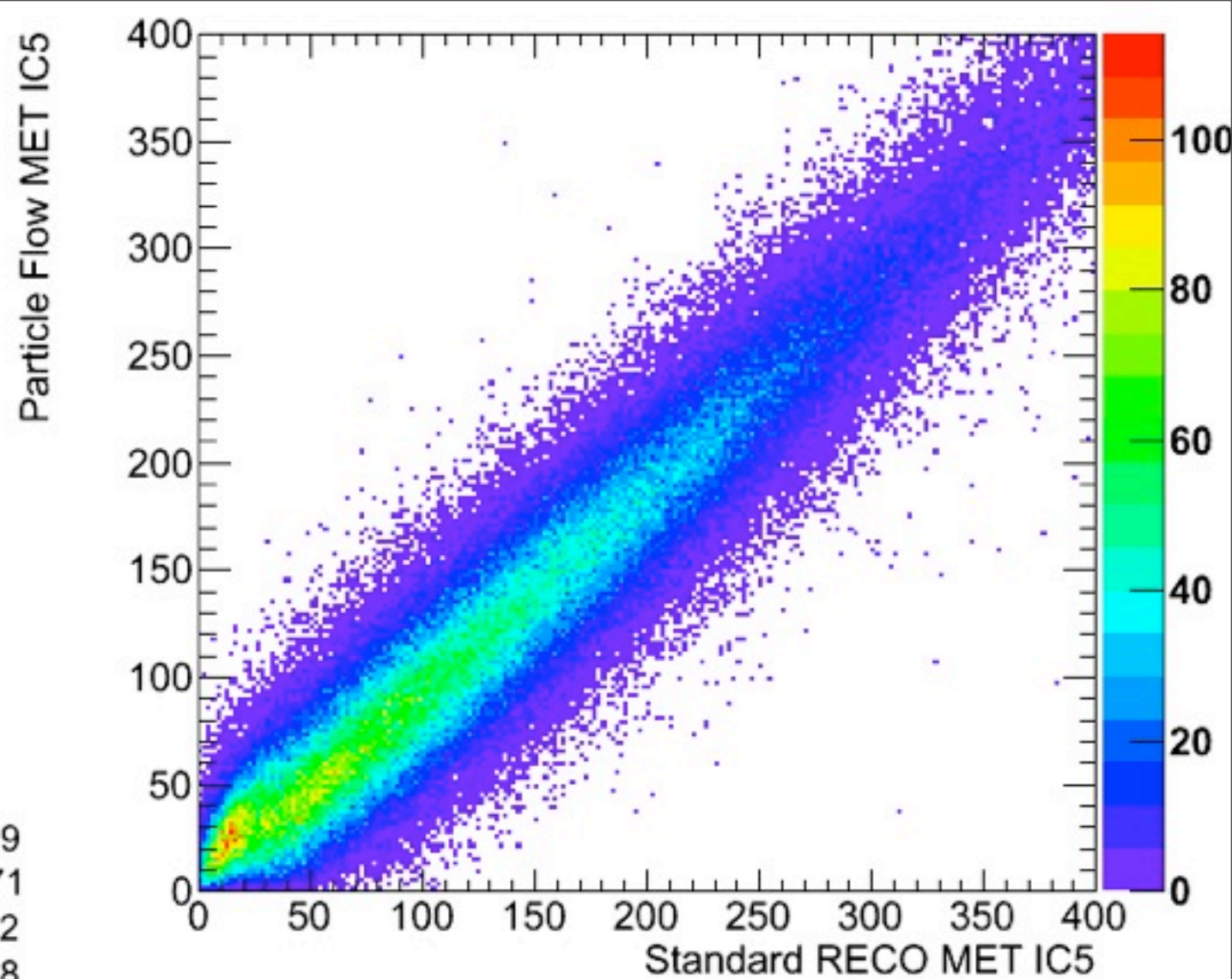
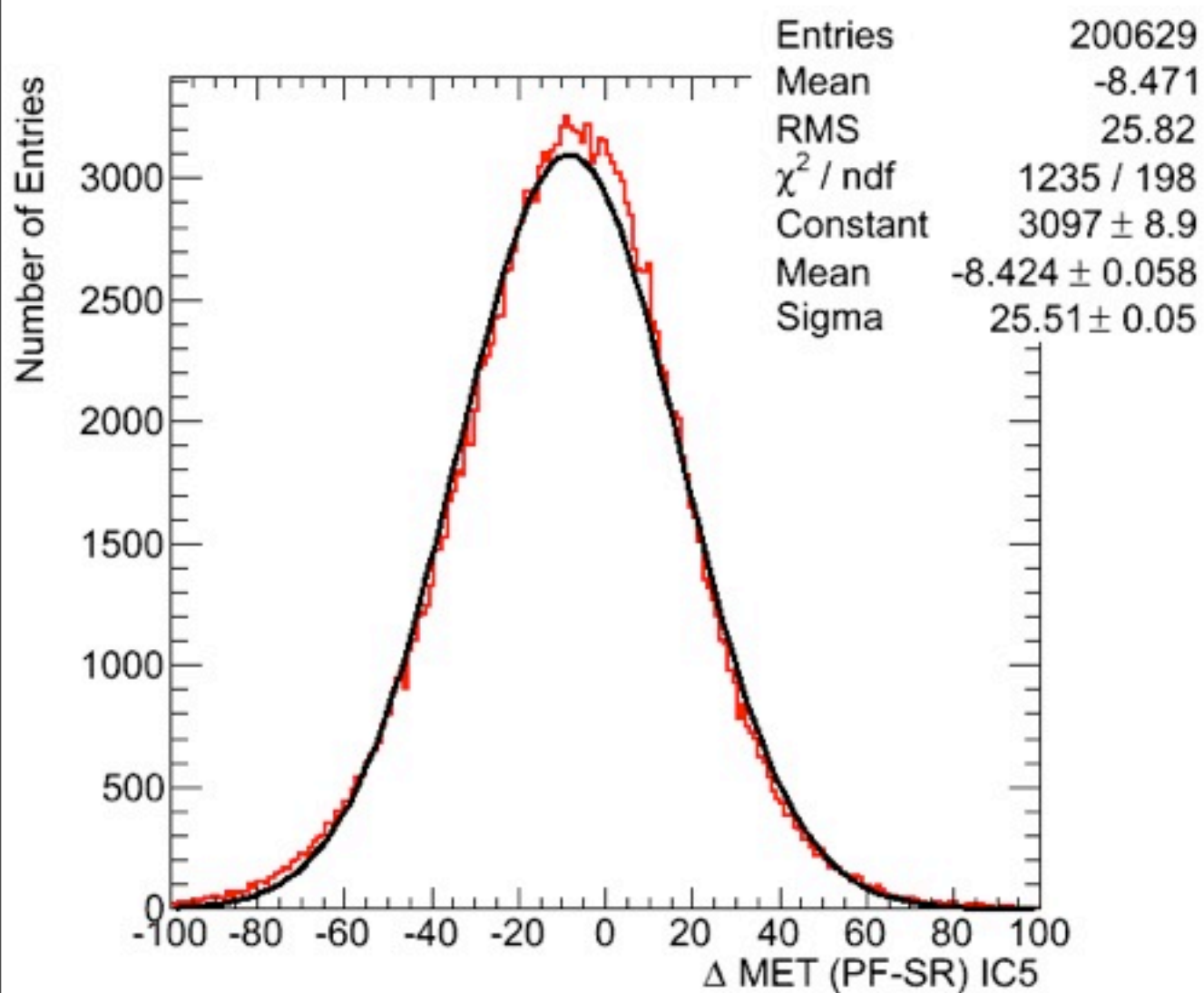
35 from 89 events , $\sim 38\%$ of the accepted events present no difference in rejection.



40%



2%



Missing issues...

- The 20 % related with isolation can be changed if we change the isolation so that PF leptons have a better rejection efficiency performance.
- Identify why there is a systematic shift in MET of ~ 8 GeV between SR and PF
- Identify why in the accepted events we have this HT differences
- Still have to check the same effects in the background samples
- background samples has been an issue